## ERRATUM

# Erratum to: Ethylene based on woody biomass—what are environmental key issues of a possible future Swedish production on industrial scale

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### Erratum to: Int J Life Cycle Assess
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Corrections:

Footnote 1 Wood needed to produce 50,000 tonnes ethylene is ∼ $9 \times 10^5$ tonnes (dry matter content 50 %) (unallocated).

The online version of the original article can be found at http://dx.doi.org/10.1007/s11367-013-0564-6.

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**Table 4** Inventory data for ethanol production

| Input | Quantity | Process emissions | |
|---|---|---|---|
| $NH_3$ (25 %) | 882 kg/h | $NO_x$ | 17.99 kg/h |
| $H_3PO_4$ (50 %) | 58 kg/h | $SO_2$ | 16.65 kg/h |
| $(NH_4)_2HPO_4$ | 74 kg/h | CO | $5.93 \times 10^{-4}$ kg/h |
| Molasses | 886 kg/h | $N_2O$ | $1.41 \times 10^{-3}$ kg/h |
| Enzymes | $221 \times 10^6$ FPU/h | | |
| $SO_2$[a] | 641 kg/h | | |
| Wood | 25,000 kg DM/h | | |
| $MgSO_4$[a] | 4 kg/h | | |
| Product output | Quantity | Price | Reference |
| Electricity | 5.4 MW | 855 SEK/MWh | (Statistics Sweden accessed March 7, 2011) |
| District heating | 31.1 MW | 747 SEK/MWh | Svensk Fjärrvärme (Swedish District Heating) (2011) |
| Ethanol | 6,177 l/h | 5.5 SEK/l | |
| $CO_2$ | 5,153 kg/h | 0.03 SEK/kg | |
| Biogas | 1,906 kg/h | 11.7 SEK/m³ | (E-On accessed March 7, 2011) |

[a] Data with regard to the environmental impact of magnesium sulfate ($MgSO_4$) production were not found. Therefore, production of $MgSO_4$ could not be considered in the assessment. Data for the production of $SO_2$ were only found expressed as $CO_2$eq. Therefore, $SO_2$ production is only considered under GWP
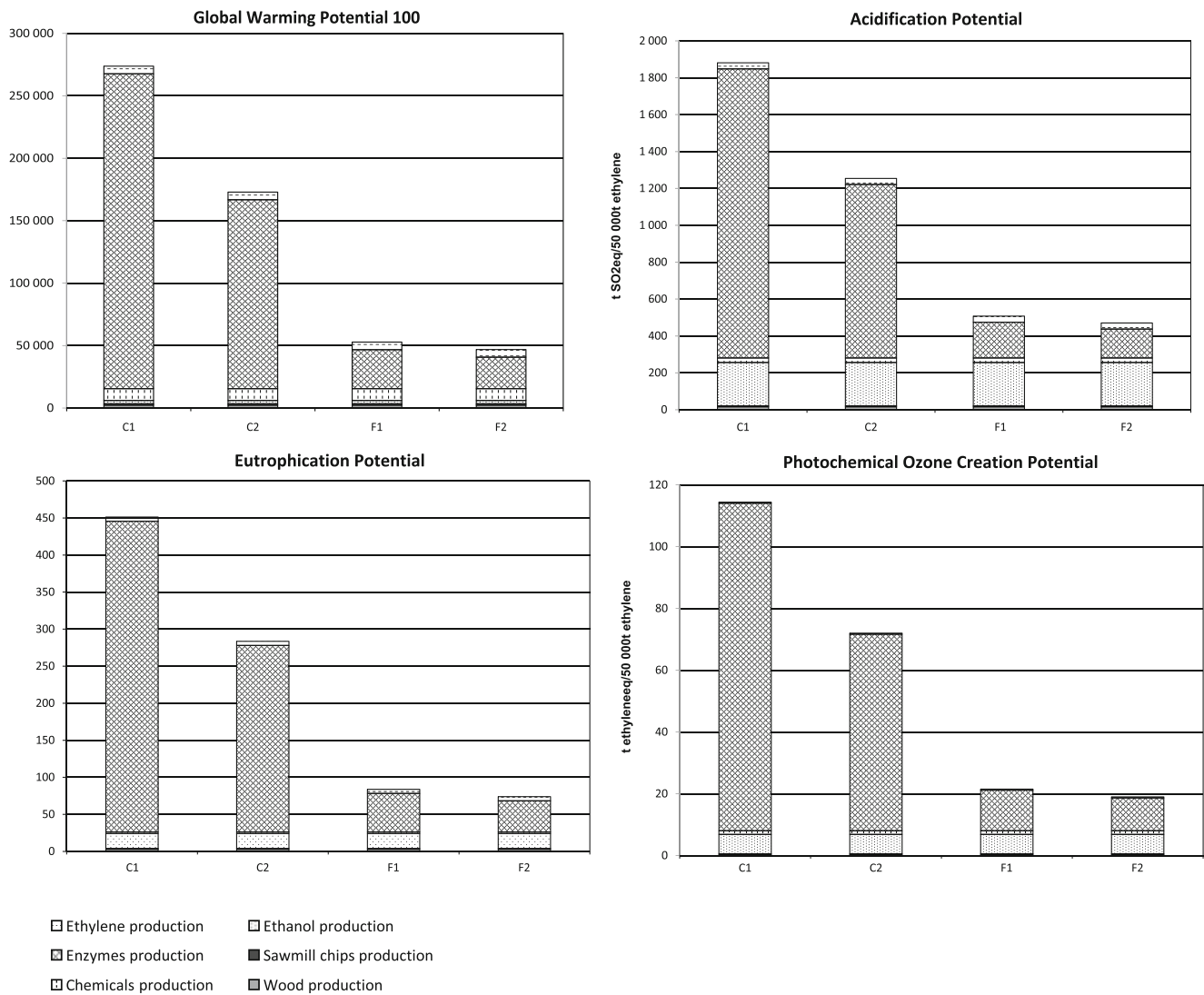
**Fig. 2** Impact potentials of sawmill chips-based ethylene. C1=enzyme product consumption with current lower end activity, C2=enzyme product consumption with current higher end activity, F1=enzyme product consumption estimated eight times lower than C1, F2=enzyme product consumption estimated six times lower than C2